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RESEARCH NOTE

Media Effects on Racial Attitudes: Evidence from a Three-Wave Panel Survey in a Political Campaign

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In Western democracies, the public harbors mostly negative attitudes toward ethnic minorities and favors policy programs intended to restrict immigration (Pettigrew, Wagner, & Christ, 2007). In some cases, these prejudices may stem from the coverage of ethnic minorities in the news media. On U.S. television, ethnic minorities are typically portrayed negatively, for example, as being poor or violent, as well as being loud politicians, or criminals (Dixon & Linz, 2000; Entman & Rojecki, 2000). Studies from Europe also reveal that racial bias is a core component of media reporting on ethnic minorities (e.g., Lubbers, Scheepers, & Wester, 1998; Ruhrmann, 2002). Given that media coverage of minorities is overwhelmingly negatively biased, exposure to such news is likely to perpetuate ethnic prejudice (Mastro, 2009).

Media Effects on Attitudes Toward Ethnic Minorities

Most studies assume that racial bias in the news is likely to prime negative evaluative thoughts in recipients (Dixon, 2008; Domke, Shah, & Wackman, 1998; Power, Murphy, & Coover, 1996). In this context, priming refers to the activation of stereotypic cognitions in the mind of such audiences in response to recent or frequent exposure to stereotypical news portrayals of ethnic groups (Roskos-Ewoldsen, Roskos-Ewoldson, & Dillman Carpentier, 2002). Theoretically, racial bias in the media is likely to automatically cue negative evaluative thoughts about minorities because news reports commonly contain elements that have a negative racial connotation. Once such thoughts have been activated by media depictions of ethnic minorities, they are temporarily more accessible for subsequent judgments as activation spreads through individuals' cognitive networks (Higgins, 1996). Moreover, since intergroup attitudes can be considered to be "the weighted average of the valence of all attributes associated with the group" (Park & Judd, 2005, p. 112), enhanced accessibility of negative

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thoughts is likely to solidify prejudicial beliefs about ethnic minorities. In this way, the priming of negativity due to the biased reporting about minorities can result in the activation and maintenance of negative racial attitudes (Fiske, 1998; Park & Judd, 2005).

For example, exposure to a crime story exhibiting a Black perpetrator triggered more negative racial attitudes than a crime story with a White or an unidentified perpetrator (Gilliam & Iyengar, 2000). Notably, even the presentation of single exemplars is likely to activate negative stereotypes that can color the perceptions of a whole social group (Bodenhausen, Schwarz, Bless, & Wänke, 1995; Dixon & Azocar, 2007). Other experiments also reveal that racial cues produce negative perceptions of minorities, such as dispositional attributions (Power, Murphy, & Coover, 1996), social judgments (Ford, 1997), or policy opinions (David, 2009; Domke, 2001). Unlike negative racial news cues, positive portrayals of ethnic minorities can reduce the level of such attitudes (Power, Murphy, & Coover, 1996). For instance, exposure to positive exemplars of ethnic minorities can result in sympathetic judgments of the whole group (Bodenhausen, Schwarz, Bless, & Wänke, 1995). Put differently, exposure to favorable news representations of ethnic minorities is likely to undercut the influence of automatically activated negative evaluative thoughts and can lead to more positive intergroup attitudes.

However, experiments revealed only short-term effects, since they examined the effects of how *recent* the exposure to negative news representations of ethnic minorities was. Unlike recent exposure, frequent exposure to racially biased news can enhance the chronic accessibility of stereotypical beliefs for judgment formation (Dixon, 2008; Domke, 2001). If individuals are frequently exposed to negative (positive) news portrayals of ethnic minorities depicting them as criminals or deviants, then such negative (positive) evaluative thoughts can become chronically accessible (Dixon, 2008; Roskos-Ewoldsen, Roskos-Ewoldson, & Dillman Carpentier, 2002). Beliefs that are chronically accessible can have more persistent effects on racial attitudes than cognitions that are only temporarily accessible. Ultimately, the chronic accessibility of negative (positive) intergroup beliefs in recipients' minds can result in an increase (decrease) in prejudice.

For example, frequent exposure to local television news increased racial resentment toward African Americans and preference for punitive crime policies (Gilliam & Iyengar, 2000). Additionally, frequent exposure to counter-stereotypical news depictions of groups can reduce negative attitudes and increase positive intergroup perceptions (Armstrong, Neuendorf, & Brentar, 1992). Research based on repeated cross-sectional data found that frequency of negative news coverage about immigrants increased perceived group threat (Schlueter & Davidov, 2013). Frequency of news about immigration has also been shown to increase the likelihood of voting right-wing populist parties (Boomgaarden & Vliegenthart, 2007; Walgrave & de Swert, 2002). However, Boomgaarden and Vliegenthart (2009) found no evidence that negative newspaper coverage of immigrants in Germany increased anti-immigrant attitudes. They showed, however, that more positive news stories about immigrants reduced the probability of considering immigration as a problematic issue. There is only one single study that tested the effects of news exposure on racial attitudes in a panel survey (Vergeer, Lubbers, & Scheepers, 2000). The researchers did not find any effect of exposure to racially biased news on an increase in the perception of ethnic minorities as threatening over time. Instead, they only demonstrate that frequency of exposure to a newspaper that portrayed minorities negatively is correlated with perceived threat.

In sum, previous findings suggest that not only how recent the exposure was but also that the frequency of the exposure as well as repeated activation of negative intergroup beliefs can contribute to an increase of negative or positive intergroup beliefs that may then influence individuals' judgments about social groups. However, two major limitations affect the conclusion drawn from almost all prior observational research. First, most studies are cross-sectional and, therefore, the causal order of variables cannot be derived from these surveys. While some scholars have found that media use predicts racial attitudes (Armstrong, Neuendorf, & Brentar, 1992; Dixon, 2008), others have demonstrated that prejudiced individuals use media programs that portray ethnic minorities negatively (Oliver & Armstrong, 1995; Schemer, 2012a). These findings highlight the fact that the causal direction of variables cannot be determined using cross-sectional data. However, previous panel studies did not observe media effects on attitudes toward ethnic minorities.

A second concern is that previous observational research used media exposure measures to study the impact of frequent exposure to racial news cues on attitudes. In these studies, exposure functioned as a proxy of the media content that people were presumably exposed to when watching a specific program or reading a news story. However, studies that predict racial attitudes using exposure confound the effects of frequent media use and the impact of variation in media content. Put differently, it is not exposure per se that elicits racial resentment, but, rather, the specific news diet to which individuals are exposed (Vergeer, Lubbers, & Scheepers, 2000).

The present study addresses these shortcomings. First, we rely on a panel survey to investigate media effects on racial attitudes. Panel data enable us to disentangle the causal order of variables. Second, unlike previous research, which focused on noncampaign contexts, our study examined the effect of news reporting on ethnic minorities in a campaign context. A campaign context that deals explicitly with immigration policy would be more dynamic and, as such, more likely to induce change in attitudes toward ethnic minorities. Third, unlike previous research that used media exposure measures to predict racial attitudes, we matched data from a panel survey with data from a content analysis that was conducted concurrently with the survey. Proceeding in this way, we can be more confident about the validity of our assumptions regarding which specific media diet the people surveyed consumed and what specific content exerted an effect on their attitudes (see also Adriaansen, van Praag, & de Vreese, 2010; Schemer, 2012a).

Media Effects on Prejudice in the Asylum Law Campaign

The present campaign dealt with the asylum law restriction in Switzerland. To date, the public has approved most of the restrictions that aimed at enhancing immigration control and deterring asylum seekers. The present referendum dealt with a further restriction of the asylum law (Kriesi, 2011; Schemer, 2012a). In the campaign, humanitarian organizations, churches, and labor unions supported the claim made by the political left that the asylum law restriction would be inhumane, inefficient, and inconsistent with Switzerland's humanitarian tradition of protecting refugees. Thus, asylum seekers were portrayed as innocent victims of persecution who deserve protection. The proponents of a stricter asylum law argued that most refugees were bogus refugees and criminals and that stricter laws were needed to deter abuse by

foreign scroungers. A majority of 68% of the voters approved of the asylum law restriction on September 24, 2006.

Hypotheses

It is assumed that frequent negative representations of asylum seekers in the news are likely to prime negative evaluative thoughts, which, in turn, produce negative attitudes toward asylum seekers. The proponents of the asylum law restriction argued that there were already too many asylum seekers in Switzerland and that most of them were criminals and tried to obtain welfare benefits by fraud. Repeated exposure to such negative portrayals may increase the chronic accessibility of negative evaluative beliefs (Dixon, 2008). Therefore, we predicted that the more frequently audience members were exposed to negative news portrayals of asylum seekers the higher would be the increase in negative attitudes toward this group (Hypothesis 1).

Although the typical media coverage of ethnic minorities is negatively biased, there may be variation in the valence of news stories. For instance, content analyses found that ethnic groups are portrayed more negatively in tabloids and on television news than in the broadsheet or regional press (Entman & Rojecki, 2000; Lubbers, Scheepers, & Wester, 1998). The frequent exposure to counter-stereotypic depictions and positive portrayals of minorities can reduce negative racial attitudes (Bodenhausen, Schwarz, Bless, & Wänke, 1995; Power, Murphy, & Coover, 1996). The opponents of the asylum law restriction portrayed asylum seekers positively as legitimate refugees and innocent victims. Accordingly, a restriction of the law would violate human dignity and human rights. This emphasis on the vulnerability of refugees and the legitimacy of their flight created a positive image of asylum seekers and provided audience members with individuating information. The frequent referrals to asylum seekers as harmless and vulnerable likely increased the accessibility of positive evaluative thoughts and deemphasized the accessibility of negative beliefs and the application of such beliefs for attitude formation. Therefore, it is predicted that exposure to more positive news portrayals of asylum seekers would decrease negative attitudes toward them (Hypothesis 2).

Method

For the content analysis, we coded all news stories dealing with the restriction of the asylum law between June 2 and September 23, 2006 (the day before the vote) in the most important news sources in the German- and the French-speaking regions of the country.¹ The basic units of analysis were statements in these articles that were

¹More specifically, the following news sources were coded: Tagesschau (26.9%), Arena (42.3%), Le journal (9.7%), Infrarouge (12.7%), Blick (2.3%), Sonntagsblick (0.2%), Neue Zürcher Zeitung (7%), NZZ am Sonntag (1.5%), Tagesanzeiger (15.4%), Sonntagszeitung (0.9%), 20 Minuten (2.4%), Aargauer Zeitung (5.2%), Basler Zeitung (5.2), Berner Zeitung (8.2%), Neue Luzerner Zeitung (6.2%), Die Südostschweiz (2.9%), St. Galler Tagblatt (4.5%), Le Matin (4%), Le Temps (4.8%), Tribune de Genève (3.7%), 24 heures (0.1%), and 20 Minutes (0.4%). The percentages in parentheses refer to the frequency with which a news source was used by survey participants. Respondents could and often do use more than a single newspaper.

related to the asylum law. For the present study, we considered only assertions that explicitly mentioned asylum seekers and portrayed them in a positive or a negative light. Four coders coded 3,314 individual statements in 727 news stories (see also Kriesi, 2011).²

For the survey, three waves of panel data were collected. The sample was recruited by random digit dialing (response rate $RR_3 = .59$). The questionnaire was programmed for an application of computer-assisted telephone interviews. For the first wave, respondents ($N = 1,725$) were contacted between July 4 and 20, 2006 (second wave: August 28 to September 2, 2006, $N = 1,415$; third wave: after September 24, 2006, $N = 1,094$; 52% female, $M_{age} = 48.18$, $SD = 17.11$).

The central dependent variable, prejudice toward asylum seekers, was assessed using four items that reflect explicit resentment toward this social group (Gilliam & Iyengar, 2000; Pettigrew & Meertens, 1995). Respondents reported their level of agreement with these statements on a 5-point rating scale (e.g., *Asylum seekers are a burden on the social safety net*, 1 = *do not agree at all* to 5 = *fully agree*). The responses were averaged to form a composite measure that reflected an interviewee's negative attitude toward asylum seekers (Cronbach's $\alpha = .78$ in wave 1, $\alpha = .79$ in wave 2, and $\alpha = .79$ in wave 3).

News media use was assessed in all panel waves to allow the content analytic data to be matched with the survey data. More precisely, interviewees named their favorite newspapers and television news shows that they used to obtain information about the asylum law campaign. Of our respondents, 95% reported that they received their information from at least one news source that was coded in the content analysis. As control variables, demographics (age, gender, and education) and ideology (left–right self-positioning, 1 = *left* to 10 = *right*) were assessed. In addition, a 3-item measure of right-wing authoritarianism (Altemeyer, 1996) was included.³

Data Analysis and Matching of Content Analysis and Panel Data

The content analysis and the survey data were matched on an individual level. Specifically, every survey participant was assigned a value representing the frequency with which she or he had been confronted with negative and positive statements about asylum seekers in news stories during the campaign. This matching was based on the specific news media use patterns that the interviewees reported in the survey. For example, a news show presented asylum seekers as criminals and bogus refugees, which would be coded as two negative statements. Additionally, a statement in a specific newspaper portraying asylum seekers as contributing positively to Swiss society was coded as a positive statement. A respondent who only watched the television news was assigned a value of 2 for exposure to two negative statements and a value of 0 for exposure to a positive one. A recipient of both the television show and the

²The reliability of the coding of the evaluative statements is .81 (Cohen's Kappa). The reliability was coded based on 20 news stories that varied with respect to the frequency of valenced news portrayals of asylum seekers (Range: 1–19).

³A sample item is *Obedience and respect for authority are the most important values children should learn* (1 = *fully disagree* to 5 = *fully agree*, Cronbach's $\alpha = .64$).

newspaper was assigned a value of 2 for exposure to the negative statements and a value of 1 for exposure to a positive one. The same procedure was applied to the frequency of reporting of other news sources used by the audience and for different time intervals.

Results of the Content Analysis

Of 3,029 news statements, 1,330 (44%) dealt with asylum seekers as a group or with individual refugees. Other statements referred to bureaucratic issues or legal procedures without mentioning the group. There were 618 negative evaluative statements about asylum seekers (46%) portraying them as criminals, bogus refugees, and scoundgers that tried to cheat the welfare system. In contrast, 511 (38%) of the statements presented asylum seekers in a positive light as human beings whose dignity must not be violated and as innocent victims of persecution who deserved to be protected.⁴ For subsequent analyses, all negative (positive) statements were summed up to form a summary index of negative (positive) news portrayals of this group. These scores functioned as the independent variables in the media effects analyses.⁵

Media Effect Results

The data were analyzed relying on random effects regressions in which measurement occasions are nested within individuals. First, prejudicial attitudes toward asylum seekers at time t were regressed on the covariates (demographics, political predispositions, and the lagged dependent variable) and on time to assess change in attitudes (Model 1, Table 1). The positive coefficient of time indicates that negative attitudes toward asylum seekers increased slightly over time. Additionally, especially older people, less educated, authoritarian, and right-wing respondents exhibited prejudicial attitudes. Sex is not related to change of attitudes toward asylum seekers. Unsurprisingly, the autoregressive effect exerts the strongest influence.

Second, exposure to negative and positive news portrayals of asylum seekers at $t - 1$ was entered in the model to test the hypotheses. The first hypothesis predicted that exposure to more negative news representations of asylum seekers would increase

⁴The remaining statements were neutral ($n = 201$, 18%) referring to asylum seekers as the social group that was affected by the asylum law restriction without any evaluative connotation. The proportion of negative to positive news depictions of asylum seekers varies from week to week. However, if we look at this ratio, then we observe that negative portrayals become more frequent and positive depictions less frequent over time. In the period before the first panel wave, there is nearly a similar share of negative and positive news representations of asylum seekers (46% to 44%). Between the first and the second wave, the ratio is 44% to 41%. In the last period, negative portrayals (48%) outnumbered positive representations of the social group (35%). However, audience members were always exposed to a mix of negative and positive portrayals even if they used only a single source. It is also important to note that although television broadcasts have the widest audience reach, newspapers convey considerably more information. The share of representations that is aired on television broadcasts is only about 9%. In other words, newspapers conveyed the vast majority of positive and negative portrayals of asylum seekers in the present campaign. In addition, there are only two real broadcasts that are watched in the German- and French-speaking regions, respectively. The problem is that there is too little variation in the television news use patterns to separate the effects of television news portrayals and newspaper representations of asylum seekers.

⁵Neutral assertions were not considered because they did not affect the attitudes of respondents.

Table 1

Media Effects on Racial Attitudes (Unstandardized Coefficients, Standard Errors in Parentheses)

Independent Variables	Model 1 <i>b</i> (SE)	Model 2 <i>b</i> (SE)	Model 3 <i>b</i> (SE)
Intercept	1.057 (0.078)**	1.149 (0.084)**	4.322 (0.086)**
Step 1: Covariates ΔR^2	.653**	.653**	.591**
Time	0.073 (0.024)**		-0.004 (0.057)
Sex (male = 1)	0.022 (0.029)	0.037 (0.031)	-0.008 (0.035)
Age	0.002 (0.001)*	0.002 (0.001)*	0.001 (0.001)
Education	-0.021 (0.005)**	-0.023 (0.005)**	0.010 (0.006)
Authoritarianism	0.163 (0.017)**	0.183 (0.019)**	0.018 (0.020)
Ideology (left-right)	0.052 (0.008)**	0.056 (0.008)**	-0.001 (0.008)
Prejudicial attitude <i>t</i> - 1	0.584 (0.017)**	0.549 (0.018)**	0.452 (0.026)**
Step 2: Media effects ΔR^2		.011**	.019**
Negative news portrayals of asylum seekers		0.004 (0.001)**	0.003 (0.001)**
Positive news portrayals of asylum seekers		-0.002 (0.001)*	-0.002 (0.001)*
Total R^2	.653**	.663**	.610**
σ_u	.161	.202	1.318
σ_e	.394	.389	.389
Rho	.143	.212	.919
<i>N</i>	1030	992	992

Note. σ_u Represents the individual-specific residual over time, σ_e is the time-specific residual; rho represents the proportion of variance contributed by individual differences in prejudice. As the fixed effects regression method can only accommodate time-invariant predictors, time-invariant covariates in Model 3 are included as interactive effects of the respective variable and time. Nonsignificant findings indicate that the effects of the covariates on prejudice do not vary over time.

* $p < .05$; ** $p < .01$.

prejudice in the audience. The results of the second model are in line with this assumption. The more the audience was exposed to news conveying a negative image of asylum seekers the more their negative intergroup attitudes increased over time. Thus, repeated exposure to news depictions of asylum seekers as criminals and freeloaders resulted in more pronounced prejudicial attitudes at a later point in time.

The second hypothesis postulated that exposure to more positive news portrayals of asylum seekers should reduce prejudice. The findings support this hypothesis, showing that the higher the exposure to positive news about asylum seekers the higher the decrease in negative attitudes toward that group. In other words, repeated exposure to individuating information, positive exemplars of asylum seekers, and depictions of asylum seekers as legitimate refugees decreased negative intergroup attitudes in the public. In sum, both hypotheses received empirical support. Repeated exposure to positive and negative news portrayals of asylum seekers significantly affected racial attitudes in the audience. On the one hand, the campaign arguments of the opponents in the news portraying asylum seekers in a positive light fueled the decreasing trend of negative intergroup attitudes. On the other hand, proponents of the asylum law

restriction who equated asylum seekers with scroungers and criminals in the news worked against this trend of prejudice reduction and thwarted the efforts of the opponents of a stricter asylum law.

It was also tested whether the effect of exposure to more negative news portrayals of asylum seekers differs in strength from the effect of repeated exposure to positive depictions. A formal test indicates that prejudice-inducing effect of frequency of exposure to negatively biased news portrayals is stronger than the prejudice-decreasing impact of frequent favorable depictions ($z = 2.57, p < .05$). Thus, campaign news that portrayed asylum seekers in a negative light exerted a stronger effect on prejudice in the public than the countercampaign in the news.⁶

Discussion

The present study clearly demonstrates that exposure to negative and positive news portrayals of minorities in a campaign affected racial attitudes. Repeated exposure to depictions of a social group that causes economic, cultural, and security problems increased prejudice in the public over time. This finding is consistent with previous evidence suggesting that negative portrayals of ethnic minorities in the media increased the accessibility of negative thoughts about these groups, resulting in negative racial attitudes (Dixon, 2008; Vergeer, Lubbers, & Scheepers, 2000). Additionally, we demonstrated that positive campaign coverage of minorities attenuated negative out-group attitudes. Specifically, exposure to frequent news portrayals of asylum seekers as legitimate refugees and innocent victims who had escaped from torture reduced prejudice. The positive image and individuating information provided by this positive coverage is likely to undercut negative beliefs about ethnic minorities. Similar effects have also been demonstrated in experiments, showing that counter-stereotypic or individuating information reduces the activation of negative evaluative thoughts and the application of these beliefs in judgments about ethnic minorities (Bodenhausen, Schwarz, Bless, & Wänke, 1995; Power, Murphy, & Coover, 1996; see also Boomgaarden & Vliegenthart, 2009). In sum, exposure to frequent news stories initiated by opponents of the asylum law restriction helped reduce negative out-group attitudes in the public that had prevailed at the beginning of the campaign and that had been stirred by news stories that created a negative image of asylum seekers. In addition, it was demonstrated that the impact of negative news stories of asylum seekers were stronger than the impact of positive group portrayals.

The present results complement survey and experimental research in several ways. In contrast to previous surveys that established only cross-sectional evidence of these

⁶Additional analyses were performed to check the robustness of the findings. First, a fixed effects regression was applied to check for the biasing effect of unobserved heterogeneity (Allison, 2009). Unobserved heterogeneity can occur when unobserved variables (e.g., external shocks, selective exposure) affect both predictors of interest and the dependent variable, causing a correlation of the regression residual and predictors of interest. This, in turn, violates the assumption of the random effects model and may bias the resulting estimates. With respect to the media effects, the results of a fixed effects regression are similar to the findings of the random effects model (Model 3 in Table 1).

effects, the present study showed media effects that increased and decreased prejudice over time. Specifically, due to the quasi-experimental nature of the research design, people's out-group attitudes were predicted by the news content to which they were exposed in the period before they were interviewed. In sum, this research design, paired with the longitudinal survey, strongly speaks to the causal order of the variables (see also Schemer, 2012b).

Although this research provides important insights into the study of media effects on racial attitudes, some possible limitations should be acknowledged. A first possible limitation refers to the present campaign, which was specific, making generalizing to other contexts a complicated matter. As the campaign explicitly dealt with asylum policy, the use of negative portrayals of the minority group was more obvious than in elections. However, even election studies dealing with a multitude of issues unrelated to race found that racial cues appear in campaign messages and increase the activation of racial attitudes (Valentino, 1999). Furthermore, previous studies were mostly conducted in nonelection contexts and found effects that are similar to our findings. Thus, the specific context might not necessarily limit the generalization of our results.

Additionally, the present methodology may be worth discussing more thoroughly. Our analysis assumed that the media content that was matched to the interviewees was, in fact, the news content to which they were exposed. On the one hand, this content may have been only a reduced amount of the messages that audience members actually received through different channels. The impact of these sources was not considered in our analysis. Therefore, our findings may underestimate the actual effects. On the other hand, the effects obtained here may also overestimate the news effects. The matching procedure implied that interviewees were exposed to the news regularly, suggesting that users of daily newspapers must have been exposed to these sources every day. This assumption overlooks the fact that news users might be less assiduous than the matching procedure assumed. This source of variation was not sufficiently considered.⁷ However, it is fair to say that the present assessment of exposure to news portrayals of ethnic minorities is more precise than previous measures of media use.

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⁷One anonymous reviewer pointed to the fact that the content analytic data should be weighted by frequency of exposure to media outlets. Frequency of exposure to news outlets was not captured in the present study. We only assessed importance of television news and newspapers as sources of information in the campaign (1 = *not at all important* to 5 = *very important*). When we weight exposure to more positive and negative portrayals of asylum seekers with these news media attention measures and use weighted exposure to more positive and negative news depictions of asylum seekers as independent variables, the findings remain unchanged. Thus, weighting with news media attention does not matter in the present case. However, future studies may study the impact of different weighting procedures on the results of media effects models.

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